



## It's Time to Tax Groundwater Use

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(This editorial is based on the article "It's time to tax groundwater use" which appeared in BusinessLine on 15th January 2019.)

In an attempt to discourage overexploitation of groundwater and ensure a more resilient groundwater regulatory mechanism in the country, the Centre has proposed to introduce for the first time a Water Conservation Fee (WCF) on groundwater extraction by all users of groundwater in the country, barring the armed forces, farmers and individual households.

- The draft guidelines were prepared by the Ministry of Water Resources.
- Apart from the industrial units, all business establishments and infrastructure projects, such as residential complexes, office buildings, hotels, and hospitals, have to pay WCF, which could vary from ₹1 to ₹100 per cubic meter of water extracted.

**NGT has stayed notification on groundwater** terming the above notification issued by the Union Water Resources Ministry on the extraction of groundwater, as "unsustainable", the National Green Tribunal (NGT) has asked the Centre to "not give effect" to it as it had "serious shortcomings."

- Rather than laying down stricter norms for extraction of groundwater for commercial purposes and putting in place a robust institutional mechanism for surveillance and monitoring, extraction of groundwater has been liberalized adding to the crisis, unmindful of the ground situation and likely impact it will have on the environment.
- The so-called regulation is illusory. The so-called conditions are incapable of meaningful monitoring as shown by past experience also. There is also no check on injection of pollutants in the groundwater in the impugned notification
- The fee virtually gives license to harness groundwater to any extent.
- The NGT directed the Ministry of Environment, Forests and Climate Change to constitute a committee to examine "the issue of an appropriate policy for conservation of groundwater".

### Why this Fee is Need of the Hour?

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- The enforcement of WCF comes soon after the report of the Parliamentary Committee on Restructuring the Central Water Commission and the Central Ground Water Authority (2016) which highlighted the unsustainable over-extraction of groundwater.
  - **At a time when close to 32 % of the blocks have been classified as semi-critical or over-exploited by the Central Groundwater Board (CGWB), WCF is definitely a watershed moment in the groundwater sector.**
  - Considering the pivotal role of groundwater in the country's food security and in alleviating poverty, WCF is definitely the much-awaited reform. **Over the past three decades, groundwater has become the main source of irrigation and now accounts for over 65 % of the irrigated area in India.**
  - **The World Bank's report on Deep Wells and Prudence: Towards Pragmatic Action for Addressing Groundwater Exploitation in India (2010)** underlined that groundwater-irrigated farms have twice the crop productivity than that of surface water-irrigated farms.

## Status of Groundwater Depletion

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- **India is the world's largest user of groundwater**, withdrawing about 250 cubic kilometers per year, more than twice that of the US.
- As per the latest assessment of the Central Ground Water Board, out of 447 billion cubic metre (BCM) of total replenishable groundwater available annually, 228 BCM is currently being used for irrigation, while 25 BCM is being used for domestic, drinking and industrial purposes.
- **The 5th Census of Minor Irrigation (2017)** has underlined that in 661 districts of the country about 13 million dugwells and shallow tube wells and five million medium tube wells and deep tubewells irrigate about 38 million hectares (mha) and 23 mha of land, respectively.
- Besides, the **Standing Committee of Water Resources in its 23rd report on Socio-Economic Impact of Commercial Exploitation of Water by Industries (2017-18)** has highlighted that about 85% of rural drinking water schemes in about 17.14 lakh habitations in the country are based on groundwater as source; nearly 7,426 licenses have been given to packaged drinking water plants in the water-stressed States of Andhra Pradesh, Gujarat, Karnataka, Tamil Nadu, and Uttar Pradesh.
- According to a latest **survey by the Central Groundwater Board (CGWB)**, Andhra Pradesh, Tamil Nadu, Kerala, and Karnataka are in a worse state as far as groundwater decline is concerned.
- Not only this, many multinational beverages and packaged drinking water companies in various States reportedly draw about 6.5-15 lakh liters of groundwater per day against the permissible limit of 2.4 lakh litres.
- **It is estimated that as much as 50 lakh litres of groundwater is extracted illegally on a daily basis by tanker mafia in most metropolitan cities.**

- The rate of groundwater extraction is so severe that NASA's findings suggest that India's water table is declining alarmingly at a rate of about 0.3 metres per year.
- The Standing Committee of Water Resources in its 23rd report (2017-18) underlined that by 2020, 21 major cities, including Delhi, Bengaluru and Hyderabad are expected to reach Zero Ground Water levels affecting access for 100 million people.
- The NITI Aayog in its Report on Composite Water Management Index (2018) has revealed that about 54% of the country's groundwater wells have declined and most of the States have achieved less than 50 % of the total score in the augmentation of groundwater resources.
- If the present rate of groundwater depletion persists, India will only have 22% of the present daily per capita water available in 2050, possibly forcing the country to import its water.
- **The NITI Aayog's water report has warned that if the situation persists, there will be a six% loss in the country's GDP by 2050.**
- Falling groundwater tables will result in an escalation of irrigation costs and, thereby, a rise in cost of cultivation. Up to a quarter of India's harvest has been estimated to be at risk due to groundwater depletion.

## Way Forward

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- There is an urgent need to change the status quo with tough regulations. **Besides appropriate pricing of groundwater, present situation requires policies that promote judicious use of groundwater in agriculture as well.**
- **One of the ways to reduce groundwater extraction is by encouraging the adoption of micro-irrigation techniques (drip and sprinklers).** Drip and sprinkler irrigation can save about 50 % of water compared to conventional method of irrigation in water-intensive crops.
- Efforts are also needed to institutionalize and strengthen community-based groundwater management.
- **Generating awareness about the status of local groundwater resources, education and social mobilization should form the core elements of community-based groundwater management.**
- State governments need to take policy action to facilitate the formation of Groundwater Users' Associations which possess the power to manage, maintain and distribute water resources efficiently.
- **A groundwater literacy movement should be launched to highlight the irreparable consequences of its over-exploitation.**
- These proposed interventions have to be implemented diligently within the current framework along with WCF, as groundwater is too critical a resource to continue to be left unmanaged.

[Read More about Groundwater Depletion](#)